

# MELATONIN



## CLINICAL APPLICATIONS

- Encourages Healthy Sleep Patterns
- Helps Regulate the Body's Circadian Rhythm
- Supports Antioxidant Pathways
- Promotes a Healthy Cycle of Inflammation
- Helps Combat Jet Lag

## ENDOCRINE HEALTH

Melatonin is a hormone produced by the pineal gland that plays a key role in regulating the body's circadian rhythms and induction of sleep. It plays an essential role in regulating the sleep cycles, and when supplemented, can be helpful for those who have irregular sleep patterns. Melatonin has been shown to support antioxidant activity, cardiovascular health and immune function. This formulation of Melatonin is available as 1 mg tablets for flexible dosing.

### Overview

Melatonin is produced primarily in the pineal gland but also in the bone marrow, platelets, gastrointestinal (GI) tract, eyes, skin and lymphocytes.<sup>[1]</sup> Its chemical precursor is serotonin, a neurotransmitter derived from tryptophan. Serotonin must be acetylated and methylated to form melatonin. Synthesis and production of melatonin is affected by light exposure to the eyes; serum concentrations of melatonin are typically low during the day hours and increase when dark. Since it has important effects in affecting circadian rhythms, melatonin has also been reported to have significant effects on reproduction in addition to sleep-wake cycles and antioxidant function.

### Deficiency<sup>†</sup>

Nighttime secretion of melatonin is at its highest during childhood and decreases over time. Research suggests that melatonin supplements support healthy sleep patterns in certain individuals, such as the elderly, individuals with nighttime working hours, or people traveling across time zones.<sup>[2-7]</sup> Low levels of melatonin in the body are often associated with sleep disturbances.<sup>[1]</sup>

### Sleep Support<sup>†</sup>

Melatonin supports the quality of healthy sleep as it relates to falling asleep, sleep efficiency and awakening. Five mg of melatonin have been found to be associated with a reduction in sleep onset latency by up to 16 minutes in children aged 6-14 yrs,<sup>[8-10]</sup> and similar results were found in children using 3 mg of melatonin before bedtime.<sup>[11]</sup> In adults, studies have shown that doses between 0.3-75mg have a positive effect on increasing total sleep time and reducing the time it takes to fall asleep.<sup>[12,13]</sup> Two studies using 5 mg of melatonin in adults with delayed sleep, found the melatonin shortened the time it took to fall asleep by 82 minutes and 115 minutes in the first and second studies.<sup>[14,15]</sup> A study of subjects who took melatonin for one week had better initiation, maintenance, efficacy, and activity of sleep when compared to placebo.<sup>[2]</sup> Another randomized, double-blind, placebo-controlled study of 33 subjects found melatonin to support the onset, quality, depth and length of sleep without daytime sleepiness.<sup>[16]</sup> Finally, a review of 10 trials suggests that melatonin supplementation also helps support sleep patterns in individuals crossing time zones.<sup>[17]</sup>

### Antioxidant Support<sup>†</sup>

Melatonin has been shown to be a powerful antioxidant inducer. It supports glutathione production, and stimulates intracellular antioxidant enzyme production, including superoxide dismutase and glutathione peroxidase.<sup>[18]</sup> It has also been found to scavenge free radicals and promote cytokine balance, which helps maintain a healthy inflammatory response.<sup>[19]</sup> Melatonin is also able to pass through the lipid

<sup>†</sup> These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

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part of low-density lipoprotein (LDL) and act as an antioxidant in cells. It has also been found to maintain healthy blood pressure levels.<sup>[18]</sup>

### Immune support†

Melatonin supports immune system activity by supporting T-helper cell function, cytokine balance, and the production of mediators, such as gamma-interferon and immune-supportive interleukins.<sup>[1,2,4,13]</sup> All of these factors work to boost immune function.

### Directions

1 or more tablets per day or as recommended by your health care professional.

### Does Not Contain

Gluten, corn, yeast, artificial colors and flavors.

### Cautions

If you are pregnant or nursing, consult your physician before taking this product.

Supplement Facts <sup>V3</sup>		
Serving Size 1 Tablet		
Servings Per Container 100		
1 tablet contains	Amount Per Serving	% Daily Value
Melatonin	1 mg	*
* Daily Value not established		

ID# 594100 100 Tablets

### References

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